

**FIGURE 1*****BFA4 cDNA Sequence***

ATG GTCCGAAAAAGAACCCCTCTGAGAAACGTTGCAAGTGAAGGCGAGGGCCAGATCCTGGAGCCTATAGGTACAGAAAGCAA  
GGTATCTGGAAAGAACAAAGAATTCTCTGCAGATCAGATGTCAGAAAATACGGATCAGAGTGATGCTGCAGAACTAAATCATAAGGA  
5 GGAACATAGCTTGCATGTTCAAGATCCATCTTCTAGCAGTAAGAAGGACTTGAAAAGCGCAGTTCTGAGTGAGAAGGCTGGCTTCAA  
TTATGAAAGCCCCAGTAAGGGAGGAACTTTCCCTCCTTTCCGCATGATGAGGTGACAGACAGAAATATGTTGGCTTTCTCATTTCC  
AGCTGCTGGGGGAGTCTGTGAGCCCTTGAAGTCTCCGCAAAGAGCAGAGGCAGATGACCTCAAGATATGGCCTGCACCCCTCAGG  
GGACTCACTGGAGACAAAGGAAGATCAGAAGATGTCACCAAAGGCTACAGAGGAAACAGGGCAAGCACAGAGTGGTCAAGCCAATTG  
TCAAGGTTTGAGCCAGTTTCAGTGGCCTCAAAAAACCCACAAGTGCCTTCAGATGGGGGTGTAAGACTGAATAAATCCAAAACTGA  
10 CTTACTGGTGAATGACAACCCAGACCCGGCACCTCTGTCTCCAGAGCTTCAGGACTTTAAATGCAATATCTGTGGATATGGTTACTA  
CGGCAACGACCCACAGATCTGATTAAGCACTTCCGAAAGTATCACTTAGGACTGCATAACCGCACCAGGCAAGATGCTGAGCTGGA  
CAGCAAAATCTTGGCCCTTCATAACATGGTGCAGTTCAGCCATTCCAAAGACTTCCAGAAGGTCAACCGTTCTGTGTTTTCTGGTGT  
GCTGCAGGACATCAATTCTTCAAGGCCTGTTTTACTAAATGGGACCTATGATGTGCAGGTGACTTCAGGTGGAACATTTCATTGGCAT  
TGGACGGAAAAACACCAGATTGCCAAGGGAAACACCAAGTATTTCCGCTGTAAATTCTGCAATTTCACTTATATGGGCAACTCATCCAC  
15 CGAATTAGAACAACATTTTCTTCAGACTCACCCAAACAAAATAAAAGCTTCTCTCCCTCCTCTGAGGTTGCAAAACCTTCAGAGAA  
AACTCTAACAAGTCCATCCCTGCATTCAATCCAGTGATTCTGGAGACTTGGGAAAATGGCAGGACAAGATAACAGTCAAAGCAGG  
AGATGACACTCCTGTTGGGTACTCAGTGCCCATAAAGCCCTCGATTCTCTAGACAAAATGGTACAGAGGCCACCAGTTACTACTG  
GTGTAAATTTGTAGTTTCAGCTGTGAGTCATCTAGCTCACTTAAACTGCTAGAACATTATGGCAAGCAGCACGGAGCAGTGCAGTC  
AGGCGGCCTTAATCCAGAGTTAAATGATAAGCTTTCCAGGGGCTCTGTCAATTAATCAGAATGATCTAGCCAAAAGTTCAGAAGGAGA  
20 GACAATGACCAAGACAGACAAGAGCTCGAGTGGGGCTAAAAAGAAGGACTTCTCCAGCAAGGGAGCCGAGGATAATATGGTAACGAG  
CTATAATTGTGAGTTCTGTGACTTCCGATATTCAAAAGCCATGGCCCTGATGTAATTGTAGTGGGGCCACTTCTCCGTCAATTATCA  
ACAGCTCCATAACATTCAAGTGTACCATTAACACTGTCCATTCTGTCCCAGAGGACTTTGCAGCCAGAAAAGCACCTTGGAGA  
AATTACTTATCCGTTTGTCTGTAGAAAAAGTAATTGTTCCCACTGTGCACTCTTGCTTCTGCACTTGTCTCCTGGGGCGGCTGGAAG  
CTCGCGAGTCAAACATCAGTGCCATCAGTGTTCAATCACCAACCCCTGACGTAGATGTACTCCTCTTTCACTATGAAAGTGTGCATGA  
25 GTCCCAAGCATCGGATGTCAAACAAGAAGCAATCACCTGCAAGGATCGGATGGGCAGCAGTCTGTCAAGGAAAGCAAAGAACACTC  
ATGTACCAAATGTGATTTTATTACCCAAGTGAAGAAGAGATTTCGCCGACACTACAGGAGAGCACACAGCTGCTACAAATGCCGTCA  
GTGCAGTTTTTACAGCTGCCGATACTCAGTCACTACTGGAGCACTTCAACACTGTTCACTGCCAGGAACAGGACATCACTACAGCCAA  
CGGCGAAGAGGACGGTCATGCCATATCCACCATCAAAGAGGAGCCCAAAATTGACTTCAGGGTCTACAATCTGCTAACTCCAGACTC  
TAAAATGGGAGAGCCAGTTTCTGAGAGTGTGGTGAAGAGAGAGAAGCTGGAAGAGAAGGACGGGGCTCAAAGAGAAAGTTTGGACCGA  
30 GAGTTCAGTGATGACCTTCGCAATGTGACTTGGAGAGGGGCAGACATCCTGCGGGGAGTCCGTCATACACCCAAGCAAGCCTGGG  
GCTGCTGACGCTGTGTCTGGCACCCAAGAGCAGACAAAGACTCTAAGGGATAGTCCCAATGTGGAGGCGCCCATCTGGCGCGACC  
TATTTATGGCTTGGCTGTGGAACCAAGGGATTCTGCAGGGGGCGCCAGCTGGCGGAGAGAAGTCTGGGGCCCTCCCCAGCAGTA  
TCCTGCATCGGGAGAAAACAAGTCCAAGGATGAATCCCAGTCCCTGTTACGGAGGCGTAGAGGCTCCGGTGTTTTTTGTGCCAATTG  
CCTGACCACAAAGACCTCTCTCTGGCGAAAGAATGCAAATGGCGGATATGTATGCAACGCGTGTGGCCTCTACCAGAAGCTTCACTC  
35 GACTCCCAGGCCTTTAAACATCATTAACAAAACAACGGTGAGCAGATTATTAGGAGGAGAAACAAGAAAGCGCCTTAACCCAGAGGC  
ACTTCAGGCTGAGCAGCTCAACAAACAGCAGAGGGGCAGCAATGAGGAGCAAGTCAATGGAAGCCCGTTAGAGAGGAGGTGAGAAGA  
TCATCTAACTGAAAGTCACCAGAGAGAAATTCACCTCCCCAGCCTAAGTAAATACGAAGCCCAGGGTTCAATTGACTAAAAGCCATT  
TGCTCAGCAGCCAGTCTGGTCAGCCAAACTCTGGATATTCAAAAAGGATGCAACCTTTGCACATTCAGATAAAAAGTCTCAGGA  
AAGTACTGGAGATCCAGGAAATAGTTCATCCGTATCTGAAGGGAAAGGAAGTTCTGAGAGAGGCAGTCCATAGAAAAGTACATGAG  
40 ACCTGCGAAACACCCAAATTATTCACCACCAGGCAGCCCTATTGAAAAGTACCAGTACCCACTTTTGGACTTCCCTTTGTACATAA  
TGACTTCAGAGTGAAGCTGATTGGCTGCGGTTCTGGAGTAAATATAAGCTCTCCGTTCCTGGGAATCCGCACTACTTGAGTCACGT  
GCCTGGCCTACCAAATCCTTGCCAAAACATATGTGCCTTATCCACCTTCAATCTGCCTCCTCATTTTTTCAGCTGTTGGATCAGACAA  
TGACATTCTCTAGATTTGGCGATCAAGCATTCAGACCTGGGCCAACTGCAAACGGTGCCTCCAAGGAGAAAACGAAGGCACCACC  
AAATGTAAAAAATGAAGGTCCCTTGAATGTAGTAAAAACAGAGAAAGTTGATAGAAGTACTCAAGATGAACCTTTCAACAAAATGTGT  
45 GCACTGTGGCATTGTCTTTCTGGATGAAGTGATGTATGCTTTGCATATGAGTTGCCATGGTGACAGTGGACCTTTCCAGTGCAGCAT  
ATGCCAGCATCTTTGCACGGACAAATATGACTTCACAACACATATCCAGAGGGGCCTGCATAGGAACAATGCACAAGTGGAAAAAA  
TGGAAAACCTAAAGAGTAA\*

**FIGURE 2*****BFA4 Amino Acid Sequence***

MVRKKNPPLRNVASEGEGQILEPIGTESKVSGKNKEFSADQMSSENTDQSDAAELNHKEEHS LHVQDPSSS  
SKKDLKSAVLSEKAGFNYESPSKGGNFPSFPHDEVTDNRNMLAFSFPAAAGGVCEPLKSPQRAEADDPQDMA  
5 CTPSGDSLETKEDQKMSPKATEETGQAQSGQANCQGLSPVSVASKNPQVPSDGGVRLNKSKTDLLVNDNP  
DPAPLSPELQDFKCNICGYGYGNDPTDLIKHFRKYHLGLHNRTQDAELDSKILALHNMVQFSHSKDFQ  
KVNRSVFSGVLQDINSSRPVLLNGTYDVQVTSGGTFIGIGRKTDCQGNTRYFRCKFCNFTYMGNSSTEL  
EQHFLQTHPNKIKASLPSSSEVAKPSEKNSNKSIPALQSSDSGDLGKWQDKITVKAGDDTPVGYSVPIKPL  
DSSRQNGTEATSYWCKFCFSCESSSSSLKLEHYGKQHGAVQSGGLNPENDKLSRGSVINQNDLAKSS  
10 EGETMTKTDKSSSGAKKKDFSSKGAEDNMVTSYNCFDFRYSKSHGPDVIVVGPLLRRHYQQLHNIHKCT  
IKHCPFCPRGLCSPEKHLGEITYPFACRKSNCSCALLLLHLSPGAAGSSRVKHQCHQCSFTTPDQDVLL  
FHYESVHESQASDVKQEANHLQSGDQGSVKESKEHSCTKCFITQVEEEISRHYRRAHSCYKCRQCSFT  
AADTQSLLEHFNTVHCQEODITTANGEEDGHAISTIKKEEPKIDFRVYNLLTPDSKMGEVSESVVKREKL  
EEKDGLKEKVTWTESSDDLNRNVTWRGADILRGSPSYTQASLGLLTPVSGTQEQTTLRDSNPVEAAHLAR  
15 PIYGLAVETKGFLQGAPAGGEKSGALPQQYPASGENKSKDESQSLRRRRRGSGVFCANCLTTKTS LWRKN  
ANGGYVCNACGLYQKLHSTPRPLNIIKQNNGEQIIRRRTRKRLNPEALQAEQLNKQQRGSNEEQVNGSPL  
ERRSEDHLTESHQREIPLPSLSKYEAQGS LTKSHSAQQPVLVSQTLDIHKRMQPLHIQIKSPQESTGDPG  
NSSSVSEGKGSSERGSPIEKYMRPAKHPNYSPPGSPIEKYQYPLFGLPFVHNDQSEADWLRFW SKYKLS  
VPGNPHYL SHVPGLPNPCQNYVPYPTFNLP PHFSAVGSDNDIPLDLAIKHSRPGPTANGASKEKTKAPPN  
20 VKNEGPLNVVKTEKVDRSTQDELSTKCVHCGIVFLDEV MYALHMSCHGDSGPFQCSICQHLCTDKYDFTT  
HIQRGLHRNNAQVEKNGKPKE

**FIGURE 3****A. BCY1 cDNA Sequence**

5 TGCAAGATTAAGGCCTTGAGGGCCAAAGACCAACACCTACATCAAGACACCGGTGAGGGGCGAGGAACCAGTGTTTCATG  
 GTGACAGGGCGACGGGAGGACGTGGCCACAGCCCGCGGGAAATCATCTCAGCAGCGGAGCACTTCTCCATGATCCGT  
 GCCTCCCGCAACAAGTCAGGCGCCGCCTTTGGTGTGGCTCCTGCTCTGCCCCGCCAGGTGACCATCCGTGTGCGGGTG  
 CCTACCGCGTGGTGGGGCTGGTGGTGGGCCCCAAAGGGGCAACCATCAAGCGCATCCAGCAGCAAACCAACACATAC  
 ATTATCACACCAAGCCGTGACCGCGACCCCGTGTTCGAGATCACGGGTGCCCCAGGCAACGTGGAGCGTGCGCGCGAG  
 10 GAGATCGAGACGCACATCGCGGTGCGCACTGGCAAGATCCTCGAGTACAACAATGAAAACGACTTCTTGGCGGGGAGC  
 CCGACGCAGCAATCGATAGCCGCTACTCCGACGCCTGGCGGGTGACACAGCCCGGTGCAAGCCCCCTCTCCACCTTC  
 CGGCAGAACAGCCTGGGCTGCATCGGCGAGTGCGGAGTGGAATCTGGCTTTGAGGCCCCACGCCTGGGTGAGCAGGGC  
 GGGGACTTTGGCTACGGCGGGTACCTCTTTCCGGGCTATGGCGTGGGCAAGCAGGATGTGTACTACGGCGTGGCCGAG  
 ACTAGCCCCCGCTGTGGGCGGGCCAGGAGAAGCCACGCCACCTCCGTGCTCTTCTCCTCYKCCTCCTCCTCCTCC  
 15 TCCTCTTCCGCCAAGGCCCGCGCTGGGCCCCCGGGCGCACACCGCTCCCTGCCACTTCCGCGGGACCCGAGCTGGCC  
 GGACTCCCGAGGCGCCCCCGGGAGAGCCGCTCCRGGGCTTCTCTAACTTGGTGGGGGCGGCCTGCGGAGCCCCGCA  
 GCCGGCGGGCGGGATTGCATGGTCTGCTTTGAGAGCGAAGTGACTGCCGCCCTTGTGCCCTGCGGACACAACCTGTTC  
 TGCATGGAGTGTGCAGTACGCATCTGCGAGAGGACGGACCCAGAGTGTCCCGTCTGCCACATCACAGCCACGCAAGCC  
 ATCCGAATATTCTCCTAAGCCCCGTGCCCCATGCCTCCGGGGGCCACTCCACTGGGCCCCACCTGGACCTGTTTTCCA  
 20 CTAAAGCCTTTTGGAAAGCGGTGATTTGAGGGGCAAGGTGCTTAGAGATACTCGCTCGCTGGGGAAGGGGGGAGGGAG  
 GCAGTGGTGGCTGGAGGGTGCGCCACTTTTACAGAGCCTCTGGTCAACCTGTCTGGAAAGATTGGGAGGGGGCCAGACT  
 GAAAATTTTACTAGAGTTACAACCTCTGATACCTCAACACACCCTTAAATCTGGAAGCAGCTAAGAGAACTTTTGTTC  
 TGCCAGAGGTGGCCACTAAGGCATTCTGACGCCCTCTGCCACCTCCCCGCTGTGTGTCACTCCACCCCTTCTTCCG  
 AGGAGGGGGTGGGTAAAAGGGAGAGGGAGAATTACCACCTGTATCTAGAGGTGCTCTTTGCAATCCCTAAGCCCTCTG  
 25 GTCCTGACCTCCGACCTCCAGCTCTGTCTTGTCTTGTCTTTGTCTTTCTTCCCTTCCCCCTGCCCTGCCCTTAC  
 CAGCCCAGCTTTGGGGACACCATCCTTCTGGGGAGAAGTAGGGGGAGGAATATTTGGATGGTCCCTCCATTCTCTTC  
 AGGCATCTGGAGGCCCTCTCCCCACTCCTCCAAAGAAACATCTCAAATTATTGATGGAATGTATCCCCATTCTCAGT  
 GAAAATGTGAGGAGGGGACTAATACTGGGGTAAAGGGTCAAACCCCCACCTTCATCACTATGGGCATTATATTTAGGG  
 AGTAGTTCTTGGGCTGGATTTTCTGTTGTGGAAGTGGGGGCGCCAGAGTAGTGTGTCTGCTATTTAAAGGAGCAGGA  
 30 AAGGGCGTGAGGCAGGAGGAGAGACTGGTGGAGGGAAGAGCTGCTCCTCCCATGCAGTGCCCGACTCCCTGCACCCCT  
 CTCAACCTGACCTGAACCTTTATTGAATCCTTATTAGCTTGAATCCTTATTAGCTTGAATCCTCCATGCAAATCATGG  
 AGTCTGTGTCCACCTGATGTGGTTGAGGAGAAGCCAGGTCTTCAAAGAGGGGTGAGCCTGGGGCAAAGCAGGACTGG  
 GGGGAGGTGGGCAGCAGGGCCTATTCTGAGAATCACATATTGTTACAGGCCTTGACCCCCCTTGTCTGCTTCCCTCCT  
 GCTCATTGTTGGGCTGCCACCAGCTCTCCACCCCTCCTGGTTCCGCTGGCCGGGCCAAGAGAGGATGGAGGGATGGGAGT  
 35 CCCAGGAGATCCTTGTAATAAGTGGGGTGGGACTGTTCTGAGTGATACCCGAGCACTTAAAGCTCCAGAGTCCCATT  
 CTTCTTGATGGAGCAGGTGGAGGTGCAGAGGGGATTTCTCCTCTCCTTCTCCTGTCGAGAATTAACACCTCTCCA  
 CAGCCTTCCCTCCAGAACACCAGCCAGGGAGGGGTGGGGAAGGAGGTACAGCCAAGAAAACCTGCCCTGTGACGACT  
 TCCCTCCTTCCCGCCTATGTGAGCCATCCTGAGATGTCTGTACAATAGAAACCAAACCAAATGGGCACCCTCGGTTGC  
 CGGGGGGCGAGGTGGGGAGGGGGGTGGGAAGAAGGGATGTCTGTCTGTCTGTCGTCCTCCCTCCCTCTCCACTCTTTACCCA  
 40 CAAAGGCAGAAGACTGTTACACTAGGGGGCTCAGCAAATTCAATCCACCCCTTACCAATTGAGCCAAACCTAGAAACA  
 AACACAAAACACGAATAGTGAGAGACAAAATAGAGGAGAGAAAGAGAGCATGAGAGGGAGCGAGACAGGCGACCAACA  
 CAGAGGAGAGAAAACAAAATAGCAAAAAA

**B. BCY1 Amino Acid Sequence**

45 MAELRLKGSS NTTECVPVPT SEHVAEIVGR QGCKIKALRA KTNTYIKTPV RGEFPVFMVT  
 GRREDVATAR REIISAAEHF SMIRASRNKS GAAFGVAPAL PGQVTIRVRV PYRVVGLVVG  
 PKGATIKRIQ QQTNTYIITP SRDRDPVFEI TGAPGNVERA REEIEITHIAV RTGKILEYNN  
 ENDFLAGSPD AAIDSRYSDA WRVHQPGCKP LSTFRQNSLG CIGECGVDSG FEAPRLGEQG  
 50 GDFGYGGYLF PGYGVGKQDV YYGVAETSPP LWAGQENATP TSVLFSSASS SSSSSAKARA  
 GPPGAHRSPA TSAGPELAGL PRRPPGEPLQ GFSKLGGGGL RSPGGGRDCM  
 VCFESEVTAA LVPCGHNLF C MECAVRICER TDPECPVCHI TAAQAIRIFS



**FIGURE 4**

ATGACAAAGAGGAAGAAGACCATCAACCTTAATATACAAGACGCCAGAGAGGACTGCTCTACACTGGGCCTGTGTC  
AATGGCCATGAGGAAGTAGTAACATTTCTGGTAGACAGAAAGTGCCAGCTTGACGTCCTTGATGGCGAACACAGGACA  
CCTCTGATGAAGGCTCTACAATGCCATCAGGAGGCTTGTGCAAAATATTCTGATAGATTCTGGTGCCGATATAAATCTC  
5 GTAGATGTGTATGGCAACATGGCTCTCCATTATGCTGTTTATAGTGAGATTTTGTGAGTGGTGCCAAACTGCTGTCC  
CATGGTGCAGTCATCGAAGTGCACAACAAGGCTAGCCTCACACCACTTTTACTATCCATAACGAAAAGAAGTGAGCAA  
ATTGTGGAATTTTGTGCTGATAAAAAATGCAAATGCGAATGCAGTTAATAAGTATAAATGCACAGCCCTCATGCTTGCT  
GTATGTCATGGATCATCAGAGATAGTTGGCATGCTTCTTCAGCAAAATGTTGACGTCCTTGTGCTGCAGATATATGTGGA  
GTAAGTGCAGAACATTATGCTGTTACTTGTGGATTTTCATCACATTCATGAACAAATTATGGAATATATACGAAAATTA  
10 TCTAAAAATCATCAAAATACCAATCCAGAAGGAACATCTGCAGGAACACCTGATGAGGCTGCACCCTTGGCGGAAAGA  
ACACCTGACACAGCTGAAAGCTTGGTGGAAAAAACACCTGATGAGGCTGCACCCTTGGTGGAAAGAACACCTGACACG  
GCTGAAAGCTTGGTGGAAAAAACACCTGATGAGGCTGCATCCTTGGTGGAGGGAACATCTGACAAAATTCAATGTTTG  
GAGAAAGCGACATCTGGAAAGTTGGAACAGTCAGCAGAAGAAACACCTAGGGAAATTACGAGTCCTGCAAAAGAAACA  
TCTGAGAAATTTACGTGGCCAGCAAAAGGAAGACCTAGGAAGATCGCATGGGAGAAAAAAGAAGACACACCTAGGGAA  
15 ATTATGAGTCCCGCAAAAGAAACATCTGAGAAATTTACGTGGGCAGCAAAAGGAAGACCTAGGAAGATCGCATGGGAG  
AAAAAGAAACACCTGTAAAGACTGGATGCGTGGCAAGAGTAACATCTAATAAACTAAAGTTTGGAAAAAGGAAGA  
TCTAAGATGATTGCATGTCTTACAAAAGAATCATCTACAAAAGCAAGTGCCAATGATCAGAGGTTCCCATCAGAATCC  
AAACAAGAGGAAGATGAAGAATATTCTTGTGATTCTCGGAGTCTCTTTGAGAGTTCTGCAAAGATTCAAGTGTGTATA  
CCTGAGTCTATATATCAAAAAGTAATGGAGATAAATAGAGAAGTAGAAGAGCCTCCTAAGAAGCCATCTGCCTTCAAG  
20 CCTGCCATTGAAATGCAAACTCTGTTCCAAATAAAGCCTTTGAATTGAAGAATGAACAAACATTGAGAGCAGATCCG  
ATGTTCCCAACAGAAATCCAAACAAAAGGACTATGAAGAAAATTCTTGGGATTCTGAGAGTCTCTGTGAGACTGTTTCA  
CAGAAGGATGTGTGTTTACCCAAGGCTACACATCAAAAAGAAATAGATAAAATAAATGGAAAATTAGAAGAGTCTCCT  
AATAAGATGGTCTTCTGAAGGCTACCTGCGGAATGAAAAGTTTCTATTCCAATAAGCCTTAGAATTGAAGGACATG  
CAAACCTTTCAAAGCGGAGCCTCCGGGGAAGCCATCTGCCTTCGAGCCTGCCACTGAAATGCAAAAGTCTGTCCCAAT  
25 AAAGCCTTGAATTGAAAAATGAACAAACATGGAGAGCAGATGAGATACTCCCATCAGAATCCAAACAAAAGGACTAT  
GAAGAAAATTCTTGGGATACTGAGAGTCTCTGTGAGACTGTTTACAGAAAGGATGTGTGTTTACCCAAGGCTGCGCAT  
CAAAAAGAAATAGATAAAATAAATGGAAAATTAGAAGGCTCTCCTGTTAAAGATGGTCTTCTGAAGGCTAACTGCGGA  
ATGAAAGTTTCTATTCCAATAAGCCTTAGAATTGATGGACATGCAAACTTTCAAAGCAGAGCCTCCCGAGAAGCCA  
TCTGCCTTCGAGCCTGCCATTGAAATGCAAAAGTCTGTTCCAAATAAAGCCTTGAATTGAAGAATGAACAAACATTG  
30 AGAGCAGATGAGATACTCCCATCAGAATCCAAACAAAAGGACTATGAAGAAAGTTCTTGGGATTCTGAGAGTCTCTGT  
GAGACTGTTTACAGAAAGGATGTGTGTTTACCCAAGGCTACACATCAAAAAGAAATAGATAAAATAAATGGAAAATTA  
GAAGAGTCTCCTGATAATGATGGTTTTCTGAAGGCTCCCTGCAGAAATGAAAGTTTCTATTCCAATAAGCCTTAGAA  
TTGATGGACATGCAAACTTTCAAAGCAGAGCCTCCCGAGAAGCCATCTGCCTTCGAGCCTGCCATTGAAATGCAAAAG  
TCTGTTCCAAATAAAGCCTTGAATTGAAGAATGAACAAACATTGAGAGCAGATCAGATGTTCCCTTCAGAATCAAAA  
35 CAAAAGAGGTTGAAGAAAATTCTTGGGATTCTGAGAGTCTCCGTGAGACTGTTTACAGAAAGGATGTGTGTGTACCC  
AAGGCTACACATCAAAAAGAAATGGATAAAATAAGTGGAAAATTAGAAGATTCAACTAGCCTATCAAAAATCTTGGAT  
ACAGTTCAATCTTGTGAAAGAGCAAGGGAACCTTCAAAAAGATCACTGTGAACAACGTACAGGAAAAATGGAACAAATG  
AAAAAGAAGTTTGTGTACTGAAAAAGAACTGTGAGAAGCAAAAGAAATAAAATCACAGTTAGAGAACC AAAAGTT  
AAATGGGAACAAGAGCTCTGCAGTGTGAGATTGACTTTAAACCAAGAAGAAGAGAAGAGAAGAAATGCCGATATATTA  
40 AATGAAAAAATTAGGGAAGAATTAGGAAGAATCGAAGAGCAGCATAGGAAAGAGTTAGAAGTGAACAAACAACTTGAA  
CAGGCTCTCAGAATACAAGATATAGAATTGAAGAGTGTAGAAAGTAATTTGAATCAGGTTTCTCACACTCATGAAAAT  
GAAAATTATCTCTTACATGAAAATTGCATGTTGAAAAAGGAAATTGCCATGCTAAAACCTGGAAATAGCCACACTGAAA  
CACCAATACCAGGAAAAGGAAAATAAATACTTTGAGGACATTAAAGATTTTAAAGAAAAGAATGCTGAACTTCAGATG  
ACCCTAAAACCTGAAAGAGGAATCATTAACTAAAAGGGCATCTCAATATAGTGGGCAGCTTAAAGTTCTGATAGCTGAG  
45 AACACAATGCTCACTTCTAAATTGAAGGAAAAACAAGACAAAGAAATACTAGAGGCAGAAATTGAATCACACCATCCT  
AGACTGGCTTCTGCTGTACAAGACCATGATCAAAATTGTGACATCAAGAAAAAGTCAAGAACCTGCTTTCCACATTGCA  
GGAGATGCTTGTGTTGCAAGAAAAATGAATGTTGATGTGAGTAGTACGATATATAACAATGAGGTGCTCCATCAACCA  
CTTTCTGAAGCTCAAAGGAAATCCAAAAGCCTAAAATTAATCTCAATTATGCAGGAGATGCTCTAAGAGAAAATACA  
TTGGTTTCAGAACATGCACAAAGAGACCAACGTGAAACACAGTGTCAAATGAAGGAAGCTGAACACATGTATCAAAAC  
50 GAACAAGATAATGTGAACAAACACACTGAACAGCAGGAGTCTCTAGATCAGAAATTATTTCAACTACAAAGCAAAAAT  
ATGTGGCTTCAACAGCAATTAGTTTCATGCACATAAGAAAGCTGACAACAAAAGCAAGATAACAATTGATATTCATTTT  
CTTGAGAGGAAAATGCAACATCATCTCCTAAAAGAGAAAAATGAGGAGATATTTAATTACAATAACCATTTAAAAAAC  
CGTATATATCAATATGAAAAAGAGAAAGCAGAAACAGAAAACCTCATGA

**FIGURE 5**

5 MTKRKKKTINLNIQDAQKRTALHWACVNGHEEVVTFVLVDRKCQLDVLDGEHRTPLMKALQCHQEACANILIDSGADINL  
VDVYGNMALHYAVYSEILSVVAKLLSHGAVIEVHNKASLTPLLLSITKRSEQIVEFLLIKNNANANAVNKYKCTALMLA  
VCHGSSEIVGMLLQQNVDFVFAADICGVTAEHYAVTCGFHHIHEQIMEYIRKLSKNHQNTNPEGTSAGTPDEAAPLAER  
TPDTAESLVEKTPDEAAPLVERTPDTAESLVEKTPDEAASLVEGTSDKIQCLEKATSGKFEQSAEETPREITSPAKET  
SEKFTWPAKGRPRKIAWEKKEDTPREIMSPAKETSEKFTWAAKGRPRKIAWEKKETPVKTGCVARVTSNKTKVLEKGR  
SKMIACPTKESSTKASANDQRFPSSESKQEEDDEEYSCDSRSLFESSAKIQVCIPESIQKVMEINREVEEPPKKPSAFK  
10 PAIEMQNSVPNKAFELKNEQTLRADPMFPPESKQKDYEENSWDSESLCETVSQKDVCLPKATHQKEIDKINGKLEESP  
NKDGLLKATCGMKVSIPTKALELKMDQTFKAEP PGKPSAFEPATEMOKSVPNKALELKNEQTRADEILPSESKQKDY  
EENSWDTESLCETVSQKDVCLPKAAHQKEIDKINGKLEGSPVKDGLLKANCGMKVSIPTKALELMDQTFKAEPPEKP  
SAFEPAIEMOKSVPNKALELKNEQTLRADEILPSESKQKDYEESSWDSESLCETVSQKDVCLPKATHQKEIDKINGKL  
EESPDNDGFLKAPCRMVSIPTKALELMDQTFKAEPPEKPSAFEPAIEMOKSVPNKALELKNEQTLRADQMFPSESK  
15 QKKVEENSWDSESLRETVSQKDVCPKATHQKEMDKISGKLEDSTSLSKILDTVHSCERARELQKDHCEQRTGKMEQM  
KKKFCVLKKKLSEAKEIKSQLENQKVWEQELCSVRLTLNQEEKRRNADILNEKIREELGRIEEQHRKELEVKQOLE  
QALRIQDIELKSVESNLNQVSHTHENENYLLHENCMLKKEIAMLKLEIATLKHQYQEKENKYFEDIKILKEKNAELQM  
TLKLKEESLTKRASQYSGQLKVLIAENTMLTSKLKEKQDKEILEAEIESHHPRLASAVQDHDQIVTSRKSQEPAFHIA  
GDACLQRKMNVDSSTIYNNEVLHQPLSEAQRKSKSLKINLNYAGDALRENTLVSEHAQRDQRETQCMKEAEHMYQN  
20 EQDNVNKHTEQQESLDQKLFQLQSKNMWLQQQLVHAHKKADNKSKITIDIHFLERKMQHLLKEKNEEIFNYYNNHLKN  
RIYQYEKEKAETENS